covered under his observation, notwithstanding rough and prolonged manipulation of the tissues comprising the articulation, without suppuration or other unpleasant sequence. Moreover, there is frequently observed an absence of that inflammation of an adhesive character which sometimes leads to unpleasant after-effects when the time comes for making efforts to promote the healthy movements of the joint. To those whose almost daily habit it is to observe such instances of the wonderful improvements wrought in operative surgery by the introduction of the present methods of wound-treatment, it seems to be by no means a difficult or dangerous operation to open the knee-joint and place the fragments of a fractured patella under the condition necessary for the attainment of the best possible result in such an injury. The operation, in the hands of skilful and thoroughly competent surgeons, is destined to become shorn of all its dangers, both imaginary and real, as an immediate method of treatment; it will, without doubt, in the not very far future, supplant the uncertain and tedious means at the disposal of our forefathers, and in vogue, to a great extent, at the present day.

After what has been said regarding the justifiability of suturing the patella immediately following a simple fracture, it would be superfluous to attempt to use any argument in favor of treating, in a like manner, a compound fracture of this bone. Here the indications are so plainly in favor of immediate disinfection of the wound and restoration to their normal condition, as far as possible, of the fragments, that but slight sympathy, at this day, would be extended to a surgeon in the event of a suit for mal-practice being brought against him based upon his failures so to act. GEORGE R. FOWLER.

ON THE CURE OF HÆMORRHOIDS BY EXCISION.

In connection with the experience of Dr. Lange, found on another page of this number of the ANNALS OF SURGERY, in the cure of hæmorrhoids by excision, the similar, and quite extended experience of Mr. Walter Whitehead, surgeon to the Manchester Royal Infirmary, England, will be of interest to note. The latter surgeon began the

practice of this method as long ago as 1876, having then abandooed the ligature, and the clamp and cautery, and having oever used either of them since. In February, 1882, he published a descriptian of his oew method in the *British Medical Journal*, and again in the Section of Surgery at the 1886 meeting of the British Medical Associatioo, at Brighton, he read a paper on the subject which has been published in the *Journal of the Association*, dated February 26, 1887. He contends that the internal hæmorrhoids, which are generally regarded as localised distioct tumors, amenable to individual treatmeot, are, as a matter of fact, component parts of a diseased condition of the entire plexus of veins associated with the superior hæmorrhoidal, each radicle being similarly, if not equally, affected by an initial cause, constitutional or mechaoical.

He is of opinion that, when surgical treatment becomes imperative, the extent of the mischief can only be appreciated and effectively dealt with by a free exposure of the diseased vessels, and that no procedure fulfills this purpose short of a deliberate dissection of the lower rectal area.

And, finally, he coosiders that any operation, which has for its object the removal of hæmorrhoids, is not complete which does not provide for the readjustment of the healthy tissues, with the object of securing primary uoion and rapid coovalesceoce.

The dread of hæmorrhage in excision of hæmorrhoids, he claims, is a delusion.

The loss of blood at the time of operation is so small as hardly to merit notice; though perhaps in this respect it must give precedence to the ligature and clamp; but so far as secondary hæmorrhage is concerned, the risks are unquestionably less. He states that he has oow operated upon more than three huodred patients, without a death, a single instance of secondary hæmorrhage, or one case where any complication, such as ulceratioo, abscess, stricture, or incootinence of fæces has occurred; and further, that, to the best of his knowledge, every patieot has beeo completely and permaneotly cured.

The followiog is his descriptioo of the method of performiog the operation:

1. The patient, previously prepared for the operation and under the complete influence of an anæsthetic, is placed on a high narrow table in the lithotomy position, and maintained in this position either by a couple of assistants or by Clover's crutch.

2. The sphincters are thoroughly paralyzed by digital stretching, so that they have no "grip," and permit the hæmorrhoids, and any prolapse there may be, to descend without impediment.

3. By the use of scissors and dissecting forceps, the mucous membrane is divided at its junction with the skin round the entire circumference of the bowel, every irregularity of the skin being carefully followed.

4. The external and the commencement of the internal sphincters are then exposed by a rapid dissection, and the mucous membrane and attached hæmorrhoids, thus separated from the submucous bed on which they rested, are pulled bodily down, any undivided points of resistance being snipped across, and the hæmorrhoids brought below the margin of the skin.

5. The mucous membrane above the hæmorrhoids is now divided transversely in successive stages, and the free margin of the severed membrane above is attached, as soon as divided, to the free margin of the skin below by a suitable number of sutures. The complete ring of pile-bearing mucous membrane is thus removed.

Bleeding vessels throughout the operation are twisted on division.

It is better to commence the separation of the mucous membrane from the skin at the lowest point and deal with the two sides in succession, before completing the circle above. so that any oozing that may occur shall be below the work as it proceeds. The incisions must be made through the mucous membrane and not through the skin. It is very important that no skin should be sacrificed, however redundant it may appear to be, as the little tags of superfluous skin soon contract, and eventually cause no further inconvenience. If this precaution be taken there is no fear of stricture.

The attachment of the mucous membrane and piles to the sphincters is so slight that the closed scissors as a raspatory, or the fingers, will suffice for their separation.

The firmest adhesions are always found at the highest and lowest points where the fibres of the external sphincter converge. With a very little patience the whole of the hæmorrhoid plexus can be isolated and the membrane drawn down, leaving the external sphincter almost bare and cleanly dissected. Up to this stage of the operation there is practically no hæmorrhage, for, as is well known, the arteries which supply the rectum run immediately beneath the mucous lining, and not in the loose tissue separating it from the sphincters. They are, however, necessarily cut in the next step, which consists in the transverse division of the mucous membrane just above the piles. To prevent hæmorrhage it is advisable to cut through the bowel by degrees and to twist each bleeding vessel as it is divided. After securing the vessels, before making any further incision in the bowel, attach the free edge of the piece of mucous membrane first divided to the corresponding portion of skin at the verge of the anus. This procedure is repeated until the entire circumference of the bowel is secured to the skin. By this means healing by first intention will be insured.

The arteries met with are exceedingly small, easily seized, and only require a few twists of the forci-pressure forceps to prevent both immediate and secondary hæmorrhage. Ligatures may slip off, be torn off by the first action of the bowels, or ulcerate through before the vessel is occluded, but torsion never fails.

Before the wound is closed iodoform should be insufflated between the raw surfaces. The stitches used in suturing the membrane to the skin need not be taken out as they will come away spontaneously in due time.

Whilst the patient is still on the table, introduce into the rectum a suppository containing two grains of extract of belladonna, give the external parts a final dust with iodoform, and place over all a strip of oiled lint, which is retained in position by a T-bandage.

For the first few days, with highly neurotic patients, keep a bag of ice in close proximity to the rectum, administer a dose of castor-oil on the fourth day. The patient sits up on the fourth day, and is in a condition to resume work within a fortnight.

Patients rarely suffer much pain after the operation, though this de-

pends chiefly on the nervous susceptibility of the individual. Some aching in the back may be complained of, as in pelvic operations, but this is generally relieved by change of posture. If the change of posture does not answer, a hot water-bag or hot salt applied to the back will generally give immediate relief.

Retention of urine occasionally follows, and sometimes it will be found desirable to use a catheter. This complication, however, is met with less frequently after excision than after any of the other operations which aim at the same result.

The very unreserved manner in which Mr. Whitehead commends this method of dealing with piles will undoubtedly induce its adoption in many cases by other surgeons. Reference to the report of hospital work by Dr. Weir, of the New York Hospital (see page 515 of this number) will show however that the same good results will not always be obtained by others as are reported by the Manchester surgeon. The number of operations reported by the latter, over three hundred, will strike one as singularly great. One cannot help think that a considerable proportion of them would have been successfully relieved by less heroic measures, such as carbolic acid injections, in the hands of American surgeons. In the more aggravated cases, in which the method by injection is insufficient, and the choice of procedure must be made, between ligation, the clamp and cautery, and radical excision, there is much in the reasoning and experience of Whitehead and Lange to commend the method by excision to trial.

L. S. PILCHER.

KROENLEIN ON THE OPERATIVE TREATMENT OF ACUTE DIFFUSE PUTRID-PURULENT PERITONITIS.[1]

On the basis of an address two years ago, including three operative cases of his own, and the publication of Mikulicz (*Volkmann's Sammlung*, No. 262, Dec., 1885) who had independently followed a similar line of thought, Prof. Krönlein, of Zurich, enters a plea for active interference in the class of cases indicated by the title above.

[1]Archiv. f. klinische Chirurgie, 1886, Bd. 33, Hft. ii.